REMARKS

1. Rejection of Claims 32-34 under 35 U.S.C. 112, first paragraph

The Examiner rejected claims 32-34 under 35 U.S.C. 112, first paragraph for the reasons of record. Specifically, the Examiner stated that the Applicant has not disclosed how one skilled in the art can use the method of detecting changes in lipid phosphatase activity and correlating these changes to disease detection and alleges that the claims as last submitted did not properly convey how a change or what sort of change would be required to link the disease to the change in levels.

Applicant has amended Claim 32 again in response to the rejection and believes this change addresses the Examiner's concerns. However, Applicant would like to point out that Applicant believes there is a fundamental flaw in the Examiner's allegation. Detecting a change is what these claims are written for, and it is irrelevant whether the change is an increase or decrease from normal, as a change in either direction would be a disease-induced change.

2. Rejection of Claims 1-4, 7, 8, 10-15, 32-34, and 38 under 35 U.S.C 112, first paragraph

The Examiner has rejected claims 1-4, 7, 8, 10-13, 32-34 and 38 for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention for the reasons of record. This rejection is improper for two reasons, first in so much as this is a new rejection, the Examiner has only given a reason for Claim 4 being improperly worded and has not explained the rejection for the other claims. If this is not a new ground for rejection, then it should not be listed as a new ground for rejection and instead should be included in the Examiner's response to Applicant's prior arguments.

This rejection does not on its face appear to be new as Applicant has responded repeatedly to what is meant by "other lipid binding domains." The Examiner's attention is again respectfully directed to page 8, line 21, which reads that, "the signaling pathways involving these lipid modifying enzymes..." Applicant asserts that upon reading this disclosure, one of ordinary skill in the art would understand that "other lipid-binding domains" refers to those which are capable of interacting with lipids. Also, one of ordinary skill in the art would understand which particular functional groups need to be present in the domain for a reaction or interaction to occur with the lipid. Further, on page 10 lines 3-4 Applicant describes that "...proteins that are specific for $PI(3,4)P_2$ or $PI(4,5)P_2$ can be used in accordance with the invention." Applicant submits that this further supports "other lipid-binding domains" of certain embodiments of the instant invention as one of ordinary skill in the art would clearly understand which domains would be capable of binding or interacting with $PI(3,4)P_2$ or $PI(4,5)P_2$. Since definiteness of a claim must be analyzed in light of the content of the application, Applicant submits that claim 4 clearly sets out the boundaries of certain embodiments of the instant invention and the subject matter for which protection is sought.

3. Rejection of Claims 1-4, 7, 10, 11, 14, 15, and 38 under 35 U.S.C. 102(a)

The Examiner has rejected Claims 1-4, 7, 10, 11, and 38 as anticipated by the Dowler reference. Applicant has amended claim 1 in response. Dowler does not mention PI(4,5)P2, PI(5)P, or PI and Dowler specifically does not bind P I(3,4,5)P3. Therefore, this claim amendment should remove the Dowler reference as a basis of a 35 U.S.C. 102(a) rejection, rendering this rejection moot.

4. Rejection of Claim 8 under 35 U.S.C. 103(a)

The Examiner has rejected Claim 8 under 35 U.S.C. 103(a) as being allegedly unpatentable under Dowler in light of Goueli *et al.* Claim 8 depends from Claim 1, and Applicant has amended claim 1. Dowler does not mention PI(4,5)P2, PI(5)P, or PI and

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Dowler specifically does not bind PI(3,4,5)P3. Therefore, this claim amendment should also remove the Dowler reference as a basis of a 35 U.S.C. 103(a) rejection, rendering this rejection moot.

5. Rejection of Claims 12 and 13 under 35 U.S.C. 103(a)

The Examiner has rejected Claims 12 and 13 under 35 U.S.C. 103(a) as being allegedly unpatentable under Dowler in light of Taylor *et al.* Claims 12 and 13 depend from Claim 1, and Applicant has amended claim 1. Dowler does not mention PI(4,5)P2, PI(5)P, or PI and Dowler specifically does not bind PI(3,4,5)P3. Therefore, the above-referenced claim amendment should also remove the Dowler reference as a basis of this 35 U.S.C. 103(a) rejection, rendering this rejection moot.

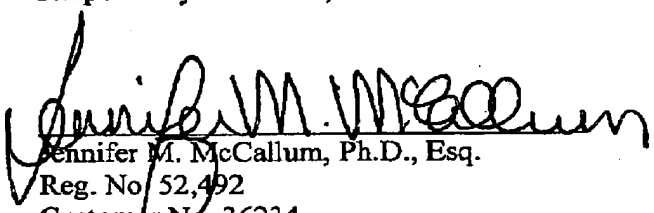
6. Provisional rejection of claims 1-4, 7, 8, 10-12, on the ground of nonstatutory obviousness-type double patenting

The Examiner provisionally rejected claims 1-4, 7, 8, 10-12, 14 and 15 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 10/850,833.

Applicant will address this issue by filing a terminal disclaimer upon successful resolution of the other outstanding substantive issues addressed herein.

If the Examiner notes any further matters which would be expedited by a telephonic interview, she is requested to contact Dr. Jennifer M. McCallum at the telephone number listed below.

Respectfully submitted,



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Date

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